



Bureau of Mines
Don "Blink" McCorkle – Dep. Commissioner



REPORT: INDIANA'S FIRST UNDERGROUND MINE DISASTER/RESCUE DRILL

Genesis of an Idea

By Commissioner Miguel R. Rivera, Sr.

January 2, 2006 is a date that will forever be in the minds of those of us who work in, around and with the underground coal mining industry. It is the day that the world learned about the Sago mine incident. It is also a day when history was made in Indiana.

Though 2005 was one of the safest years in Indiana mining history, the Sago incident gave genesis to what has become a deepening relationship of cooperation between the Indiana Coal Council, Indiana's underground coal mining industry, the Indiana Bureau of Mines and the Indiana Department of Labor. January 2, 2006 was the day that Nat Noland from the Indiana Coal Council and I spoke over the phone and began a seven month journey to help ensure that what happened at Sago would not happen in Indiana.

We can never bring back those brave miners who lost there lives at Sago, but we can certainly be inspired by their loss and with that inspiration dedicate ourselves to ensuring that Indiana's underground coal mines are as safe as any in the country. With Governor Mitch Daniels encouragement, a committee of Indiana's best underground coal miners, Federal MSHA, state government and the Indiana Coal Council met in secret for six months planning the unannounced mine disaster and rescue drill that this report summarizes. We learned lot and we plan to make specific improvements as a result.

I am particularly proud of the members of Indiana's two mine rescue teams and the mine rescue team from Gibson County Coal Company who participated in the drill.

These people don't consider themselves heroes, but they are. Their quick reaction and willingness to go into harm's way to save their fellow miners at great risk to themselves, makes them heroes. I am proud to know them. I am proud to be able to work with them. I am proud to call them fellow Hoosiers.

What follows is a summary of the mine disaster and rescue drill and a report regarding what we learned and what we plan to do moving forward. Governor Mitch Daniels and I are dedicated to the proposition that Indiana miners should work in the nation's safest mines. Last year was a fatality free year and one of the safest years in Indiana underground coal mining history. Indiana's mining industry and its miners work hard everyday to make Indiana's mines some of the safest in the world. We at the Indiana Department of Labor pledge our efforts and energies to partner with industry to keep the safety ball rolling ever forward.

Fatal Occupational Injuries by Industry Division, 2004

Industry Division:	Fatalities:
Construction	1224
Transportation & Warehousing	829
Agriculture, Forestry & Fishing	659
Manufacturing	459
Retail Trade	372
Financial Activities	115
Mining (except oil & gas)	51
Air Transportstion	47
Hospitals	29
Coal Mining	28
Nursing & Residential Care Facilities	16

Executive Summary

By Nat Noland - President, Indiana Coal Council

In early 2006 Indiana coal operators in cooperation with Indiana's Department of Labor began planning for a mine rescue drill. Coal mine operators strive to achieve an accident free work environment, but in any industrialized society work place accidents do happen. In a coal mine emergency only highly trained (coal miner volunteers) responders can enter a mine to recover injured miners. Local emergency response personnel are not authorized or trained to enter a mine for rescue purposes.

On June 20, 2006, a mine rescue drill was activated at the Black Beauty South Hart St. Portal of the Air Quality Mine. The primary focus of the drill was to test our mine rescue team readiness and response timeliness. Our goal was to have 2 full teams available in a timely fashion to react to the mine rescue scenario. Response time was excellent and 4 different teams were able to conduct mine rescue operations in the mine. Team members were mixed (not placed with individuals they train with) and they performed very well.

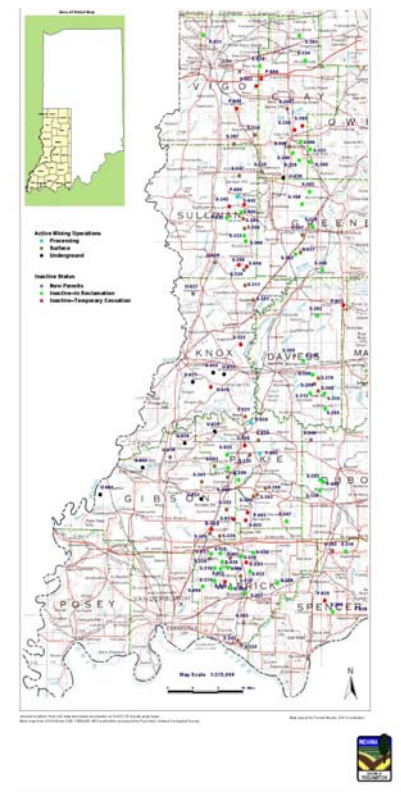
At the drill, federal Mine Safety and Health Administration (MSHA) personnel were called and participated in the drill activities. Indiana Homeland Security, along with local emergency personnel, also participated in the drill.

A lot was learned. Indiana's coal industry is continuing to cooperate with the Indiana Department of Labor to address issues to make the next response better. Some criticized us for not involving the media. Media was informed of the drill, but this was not a public relations effort. If media would have attended the drill we were prepared to handle any of their inquiries. Our primary concern in any mine emergency is to protect the safety of mine rescue team members and recover any miners from the mine. That will remain our focus.

We are already in the early planning stages of developing new training initiatives and the planning of another mine rescue drill in the future. While the focus of a future drill may be different the goal will always be to protect the safety of mine rescue team members and coal miners affected in any emergency.

The following pages provide a detailed outline of the day's events.

Location of Indiana's Underground Coal Mines



Timeline of Events

June 20, 2006

6:05 AM - Jon Dever (Black Beauty Coal Co.) informs Terry Marsh (BBCC Foreman) about drill. Dever said at 6 a.m. the mine examiner and pumper reported smoke and are investigating at the old main west seal.

6:09 AM - Mine fire team activated to fight fire (mock activation).

6:14 AM - Marsh orders evacuation of South Hart Street Portal.

6:17 AM - Marsh leaves North Portal for the South Hart Street Portal.

6:25 AM - Marsh receives confirmation of heavy smoke in area of fire makes decision to call out the state mine rescue teams. Marsh notified surface personnel to confirm all miners had been evacuated. Marsh ordered the main fan to be monitored for air quality. Main gate security established.

6:29 AM - First attempt made to reach Don McCorkle (Indiana Bureau of Mines).

6:34 AM - Call received from Ron Madlin that main mine fan is operating normally and air quality stable. Marsh orders Pirtle to continue making calls to activate state mine rescue teams and to notify MSHA. Terry Courney called Marsh to confirm all employees had been evacuated except the mine examiner and pumper.

6:38 AM - Don McCorkle reached by phone - rescue teams being activated.

6:40 AM - MSHA notified of mine emergency. Xanders receives call from McCorkle to report to the South Hart Street Portal for a mine rescue drill.

6:42 AM - Owen Detective Agency called to secure all gates at entrances to mine. Command Center phones checked to determine if communications available in the mine.

6: 42 AM - 6:55 AM - Xanders calls mine rescue team members with instructions to report to the Black Beauty South Hart Street Portal.

6:46 AM - MSHA initiates (by phone) a 103(k) order and a 107(a) order. Marsh confirms that the 107(a) evacuation was complete.

6:49 AM - All entrances to mine are confirmed closed and secured.

6:52 AM - Marsh requests copies of mine maps. Peabody Safety Dept. notified.

7:00 AM - Mine examiner called from mine and reported that a water pump near the #9 seal was on fire and ignited the adjacent coal rib. Mine fire team arrives at the affected area with fire fighting equipment. Fire fighting efforts begin and ventilation over the fire area is regulated and short circuited for fire fighting purposes. Xanders went to the slope to set up a staging area for the mine rescue teams.

7:05 AM - MSHA arrived at mine and were briefed by Marsh. MSHA begins implementation of their mine emergency check list.

7:09 AM - Greg Xanders (BBCC) reports Indiana Rescue van will be onsite soon, and reports all mine rescue team members have been notified.

7:10 AM - Marsh requests status of miners and asks if EMS should be called.

7:11 AM - Sheriff arrives to help secure property. MSHA assumes logging of all Command Center activities.

7:15 AM - Marsh receives call that rescue members are beginning to arrive.

7:19 AM - MSHA wants to know how fire will be controlled. Marsh advised fire team plans were followed. MSHA asks if there had been any communication with the fire team.

7:20 AM - First 2 MRT members report to mine.

7:23 AM - Marsh calls Xanders for update on number of rescue team members on site. Marsh directs Xanders to report to the Command Center.

7:30 AM - Two more MRT members arrive.

7:40 AM - Two additional MRT members arrive; 6 onsite.

7:45 AM - Indiana mine rescue van arrives. One more MRT member arrives. Seven MRT members on site.

7:46 AM - Call from mine checking out phone system set-up at fresh air base (FAB).

7:49 AM - Call from mine from the fire team that fire is out, fire team is out of air and fire team saw 2 lights on miner's (mine examiner and pumper) hard hats but cannot get to them. Fire team reported there was still heavy smoke and will require re-ventilation to clear. Fire team evacuating the area and returning to the surface. McCorkle arrives and is called to report to Command Center.

7:53 AM - Briefing of 1st mine rescue team (MRT) - they are prepared to go. Marsh briefs McCorkle that the 2 miners are still in the mine near the area where the fire was extinguished.

7:59 AM - McCorkle leaves command center to find Xanders.

8:00 AM - Xanders reported in 5 minutes 1st team is ready to go. McCorkle reported to Marsh that he was going to brief 1st team.

8:02 AM - Marsh receives call that the fire team is out of the mine and confirmation that the mine examiner and pumper are still in the mine.

8:03 AM - Jim Hurtte asked Marsh about media. Three more state MRT members arrive.

8:05 AM - Gibson County Coal (GCC) rescue team onsite.

8:08 AM - Captain Terry Phegley (GCC) reports to command center. Marsh briefs Phegley and orders him to report to Xanders to prepare his team to enter the mine.

8:10 AM - Marsh told 1st team to go in the mine to begin exploration and mapping of the area to prepare for the rescue efforts. No written plan to Xanders for the team to follow.

8:10 AM - Marsh logging in team members.

8:15 AM - Mine rescue equipment checked by Xanders and confirmed ready for use.

8:17 AM - 1st team went underground.

8:20 AM - Two more state MRT members arrive. Five additional MRT members (including 3 from GCC) arrived after this point, but were not logged by Xanders who was actively involved in the preparations for the team members.

8:25 - Marsh receives call that a phone is being established at the FAB.

8:35 - Marsh receives call that the FAB phone is established. Xanders reports that mine rescue team 2 is ready to enter the mine and requests written instructions. Marsh orders Ron Madlin to report to the FAB and to coordinate with the Command Center and mine rescue teams.

8:42 AM - Dever and Marsh develop plan for mine rescue team 1 rescue operation. Marsh receives report from FAB that team 1 briefed to explore seal areas 1 - 4.

8:44 AM - Additional MRT members arrive.

8:46 AM - Dever, Marsh, McCorkle present written plan for team 1 to MSHA.

8:48 AM - Marsh receives call that 2nd team being briefed.

8:50 AM - Marsh tells MSHA that it is taking too long to develop written plans and team #2 should be at FAB to back up team #1.

8:54 AM - Dever reported to Marsh - plan for team #1 is approved. Xanders activates team #2.

8:58 AM - 2nd team goes underground; arrives at FAB at 9:03 AM.

9:05 AM - 1st team starts exploration of seals #1 through #4.

9:14 AM - Communication between command center and FAB; Marsh marking map of exploration. First team at air locks and proceeding to advance.

9:15 AM - Marsh receives call from FAB the 1st intersection is clear and looks good. Xander reports to Command Center that there are enough rescue team members on site to put 4 teams under air. Further communications from FAB that team is progressing.

9:20 AM to 9:28 AM - Marsh is the only official in command center - no MSHA official and no State official. Marsh receives call from FAB that team #1 now at B1 and everything clear. Marsh gets apparatus check numbers and Dever records.

9:28 AM - Written instruction for team #2 has begun - plan to explore seal areas 5, 6, and 7; Team #3 is ready to go.

9:35 AM - Dever gives Xanders written plan for team #2 to start exploration.

9:36 AM - Team #1 member low on air and they report they are returning to FAB.

9:40 AM - Team #1 at FAB with Team #2. Team #3 being briefed to enter the mine.

9:45 AM - Team #3 reports to FAB.

9:46 AM - Marsh asks for air quality report.

9:51 AM - Team #2 going through air locks. Instructions to explore and map seal areas 5 - 7.

9:52 AM - Dever preparing written plan for team #3.

9:58 AM - Team #1 enters command center to be debriefed. Team #1 reports areas explored all clear and no smoke. Mine examiner and pumper not located.

9:59 AM - 10:15 AM - Marsh continues receiving updates from FAB on exploration efforts of Team #2.

10:08 AM - D&S Ambulance arrives on property.

10:15 AM - Team #2 reports that they are returning to FAB - one team member has a cut air hose. Team #3 begins preparation to start exploration and Team #4 at FAB.

10:17 AM - Communication with Team #2 lost, re-established at 10:18 AM.

10:21 AM - Team #2 arrives at FAB.

10:25 AM - Team #3 preparing to go under air.

10:35 AM - Team #2 returns to surface.

10:36 AM - Team #2 at command center for debriefing. Debriefing held at different location from Command Center. Marsh only person in Command Center and does not participate in the de-briefing.

10:38 AM - Report received that the mine examiner and pumper were found. Marsh asked about extent of injuries. Xanders came to command center and asks about status of injured employees. Period of lost communication with team #3, then received report that one team member had injured his ankle.

10:42 AM - Report received that victims had sustained burns and one had a fractured arm. Both had smoke inhalation.

10:43 AM - Team 3 begins coming out of area with 2 victims with burns, open fracture of right arm and smoke inhalation. No vitals reported. Walking on their own.

10:46 AM - Xanders advises medical personnel that miners being brought out of the mine and described injuries.

10:48 AM - Injured miners loaded on man trip at FAB.

10:49 AM - New helicopter on its way. The first one had a real call.

10:51 AM - The man w/sprained ankle is OK. Team 3 is loading up and getting ready to bring victims to the surface.

10:59 AM - Victims are being taken to the ambulance.

11:07 AM - Ambulance is leaving.



Observer's Report at Debriefing

*By John "Bear" Stachura
Solar Sources Underground, LLC*

The Bureau of Mines and the Indiana Department of Labor's first comprehensive mine disaster and rescue drill was an overall success. The two state teams and the team from Gibson County Coal who participated in the drill responded to the mock emergency in a very timely and professional manner and were prepared to go down when called upon. To our surprise the only significant issue that arose was the set up and operation of the command center. The following issues and suggestions regarding the set up and operation of the command center are critical:

- The "state of chaos" that always attends an emergency needs to be limited to a very short few minutes. This means that strong leadership and a centralized command structure should be established as soon as possible after notification of the emergency and needs to be communicated down the chain of command.
- The Deputy Commissioner – Mines must establish himself as the central point of command and authority. During our drill and within a very short period of time, a command center "annex" naturally evolved from the lack of apparent command and control. This resulted in an "official" command center and an "unofficial" command center that led to confusion and in a real emergency might have led to injury or danger to the rescue teams underground.
- We suggest that Deputy Commissioner – Mines immediately report to the command center and take charge. The rescue teams' trainer should be left to take charge of the needs and organization of the mine rescue teams. The primary checklist developed for the new Mine Rescue Manual needs to be updated and followed and command and control needs to be communicated and demonstrated early in the emergency.

The industry can help the state and its rescue teams by ensuring the availability of sufficient space to house the command center, by providing accurate and detailed

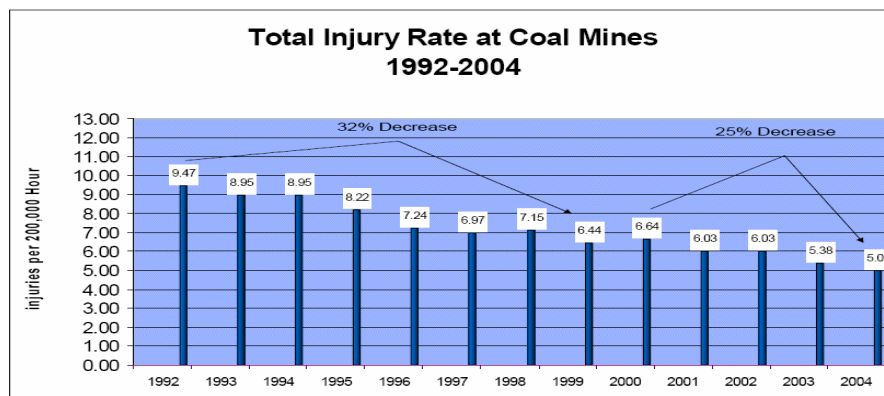
maps, by ensuring means of communication and by designating at least two officials from the mine at the Fresh Air Base (FAB). These representatives must be able to produce accurate information regarding the miners and the condition of the mine in a quick and accurate fashion. The designated communications person for the mine and the command center needs to be diligent and thorough when asking questions and in making statements to the families and media.

MSHA's role in the rescue process is critical, after all no one can go into the mine without MSHA's order and only after a detailed plan is approved by it. We must be sure to work closely with MSHA to ensure open lines of communication, cooperation and clarity of purpose, direction, process and rolls and responsibilities.

What we learned can be summarized in three general points:

- Detailed rescue plans must be quickly and accurately prepared and submitted to MSHA and despite the desire to save lives, rescue teams must wait until such plans are approved and communicated before proceeding underground;
- The team trainer must continually update and plan for a team rotation schedule that allows for a back up team for each team underground; and
- Centralized, vigorous and well informed command and control is critical to the success of any mine rescue.

Good job mine rescue teams! We are all safer because of the work you do.

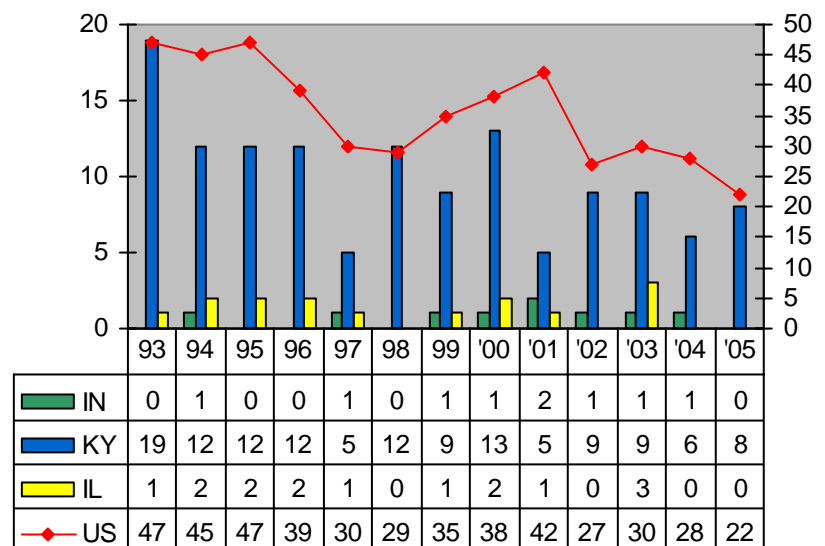


State of Indiana's Response:

Action Items as a Result of Mine Rescue Drill

- Work with MSHA and Vincennes University (VU) to bring a "Mine Rescue Command Center training" seminar to VU.
- Make a list of signs to use during Mine Rescue drills moving forward, including but not limited to, Command Center, Debriefing Room, Media, etc.
- Research the cost of purchasing 5–6 handheld radios for communicating on the surface, as well as the cost of neck-radios for rescue team members.
- Review the most recent Mine Rescue document in light of the drill for clarifications, additions, deletions, etc.
- Review the mine maps that mines use to ensure the coordinates on the maps are the same, i.e. references, keys, etc.
- Assess Don McCorkle's roles and duties in case of any mine emergency and better define.
- Designate a rescue team member to be the driver of the mine rescue vehicle instead of Don McCorkle. Don's primary role is to get to the mine and coordinate the Command Center.
- Design and implement Command Center prototypes and define roles and responsibilities. 3–4 miners should be designated to work with Don McCorkle to develop a plan for setting this up. MSHA should be advised as what to expect when they arrive at a mine emergency. The State should consider purchasing test SCSR and Don McCorkle should randomly ask miners on a mine visit if they know how to use the equipment. The State should ensure that all miners know how to escape the mine.
- The State should plan one or two "mini drills" this fall focusing on Command Center development and operation.

Coal Mine Fatalities



Mine Inspection Report for Q2 2006

By Deputy Commissioner - Bureau of Mines
Don "Blink" McCorkle



Executive Summary:

The findings/violations at the mines during the quarterly inspections were as follows:

There were rock dusting, permissibility, belt line, and ventilation violations. All violations, when pointed out to mine management, were corrected immediately and the mine area made safe. None of these violations were substantial or significant. The workers and management were helpful and cordial. The focus this quarter was on belt lines and escape-ways because of the recent mine incidents nationally. Mine management and the work force are aware of the importance of keeping the mines in a safe condition to prevent any disaster from happening. The coal mines that were inspected were in good if not excellent condition. They are maintained in a clean and safe condition and safety is the number one priority at each mine. No mine is perfect; however, all are striving to maintain a safe work environment.

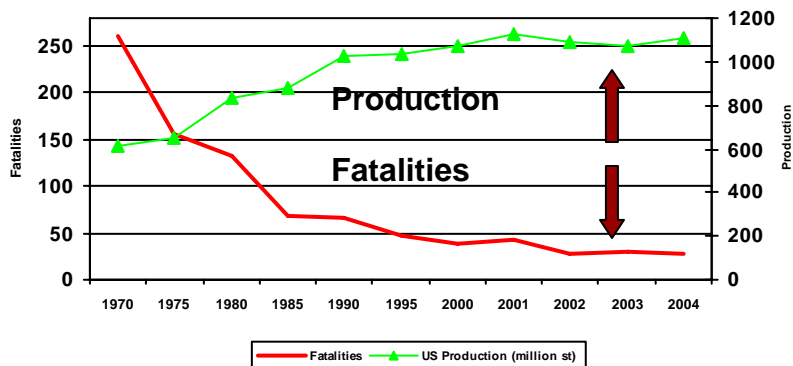
The quarterly inspections of the seven underground mines were as follows:

Howesville Mine: Sunrise Coal Company.

Inspected May 3, 2006. The belt lines and primary & secondary escape-ways were

inspected. The working unit was observed producing coal, an air reading taken at the face line curtain, and faces checked for gas. No violations were found. This mine has poor roof conditions and water but all attempts are being made to maintain the

Coal Mine Safety and Production Trends



mine in working condition. Inspected all mine records and found that they were up to date. The mine ceased operation June 9th, 2006. It is relocating to a new mine location in Carlisle, Indiana.

Hazleton mine: White River Coal Company.

Inspected May 30, 2006. Inspected the belt lines and escape-ways. They were safe, clear of obstruction and adequately rock

dusted. Inspected Unit #1 and all faces were clear of gas and air was traveling its normal course. Inspected all mine records and they were up to date. No violations were found.

Freelandville Mine: Triad Coal Company.

Inspected May 2, 2006. Inspected the belt lines and primary & secondary escape ways. Escape-ways were safe and clear. Inspected south main west room panel and all faces were clear of gas. Air readings at intake were 23,220 cfm and the return air reading was 16,000 cfm. Inspected mine records and all were up to date. No violations were found.

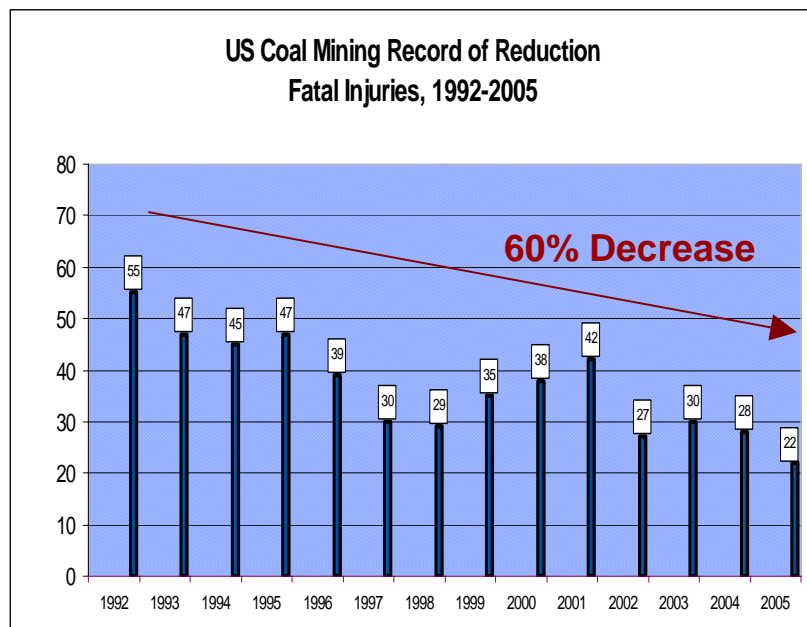
Solar sources rail site.

Inspected April 26, 2006. Inspected all rail site mine books and all were up to date. Inspected all coal tunnels and belt lines and all were clean and free of obstructions. The loading facility and hydraulic areas were inspected and no violations were found.

Prosperity Mine: Five Star Mining Company.

Inspection May 10, 2006 and June 15, 2006. Inspected mine records and found one air reading not entered. This was corrected. Inspected Belts 1N1 from ME to x-cut 40. This area was clean. Inspected 2N1 from 40 x-cut to Me, Rib at x-cut 28 needed pried down and rib at 68 x-cut needed pried down, both areas were secured and made safe. Inspected MW1 belt and it was clear. Inspected MW2 belt and it had an inadequate supported rib which was flagged and traffic rerouted. The area was made secure. Inspected MW#3 belt, all belt transformers on the route and head and tail areas. All areas were clean and clear. Inspected Unit #3. Unit needed

rock dusting and this was being done. Also checked all section equipment. Found bent packing gland on #1 Scoop and this was repaired. #1 Diesel Scoop had damaged conduit on left side light, this was repaired. #12 Miner had a loose packing gland on methane monitor and this was repaired. All seven faces were clear of gas but a line curtain needed to be hung in #4 face. Air reading at last open x-cut was 25,238 cfm. Inspected Unit #5. Checked all face equipment and all ten faces. All faces were clear of gas and equipment was found to have no violations. Needed one belt switch moved on section belt and this was done. In general, mine is in good shape.



Gibson Mine: Gibson Coal Company:

Inspected May 15, 2006 and June 27, 2006. Inspected all mine records and they were up to date. Inspected the 1st 54 belt and it was clean and free of obstructions. Inspected 1st 48 belt. Belt needed cleaned at drive area, as well as swept, and the tail needed cleaned. This was done. 2nd 48 needed cleaned. This was done. 3rd 48 head needed cleaned and this was done. 4th 48 belt was ok. Unit #1 1st 42 belt was

ok. Unit #1 2A belt rib rash needed cleaned and 13 and 14 x-cut. This was done. Traveled secondary escape-way and it was clear and clean. Belt air readings on 1st 54 belt was 190 fpm and on 1st 48 belt was 220 fpm. Inspected all 11 faces of unit #3. Highest gas reading was .3% Ch4 at faces. Spot checked face equipment and it was clean and in good working order. Air reading at last open crosscut was 19,890 cfm. Oil station on section needed cleaned up and this was done. Inspected travel ways on unit #3 and #4 and found some loose top in both travel ways which were pried down and area made safe.

Air Quality Mine: Black Beauty Coal Company:

Inspected May 9, 2006 and June 23, 2006. Inspected all mine records and they were up to date. Inspected MSouth belt from Bottom to Unit #2 and a loose rib was observed in walkway 39 to 40 x-cut. Condition was corrected. Loose roof and rib was observed at #48 x-cut; condition was corrected. Inspected 3WC belt; rib fall in walkway needed cleaned and this was corrected. Inspected MS drive area to # 75 x-cut., belt transformer and take-up. Areas were ok. Inspected intake escape-way from mouth of unit #2 to #35 x-cut. Needed rock dusted from 64 x-cut to #35 crosscut. This was done. Inspected Unit #2 and all eight face entries were clear of gas. Inspected face equipment and found two

conduits on face miner that needed tightened and this was done. Inspected battery stations and Unit #2 stations did not have adequate ventilation. A change was made and stations were adequately ventilated. Inspected unit transformers for proper tagging and identification. Last open crosscut air reading was 30,720 cfm. Inspected Unit #4 and all eight entries were clear of gas. All face equipment was checked for permissibility and no violations were found. Inspected Unit #5 all seven entries were clear of gas. Equipment was checked and no violations were found. Inspected travel way from bottom to Solar slope. Bottom area was clear and clean. Overall, mine was in good shape and in good condition.

Francisco Mine: Black Beauty Coal Company.

Inspected May 31, 2006. Inspected all mine records and books were up to date. Inspected Main East belt, #1 SE belt, #1SW belt, A&B belt 6 South Belt. All belt lines were in excellent condition, well rock dusted and clean. Inspected intake escape-way and found a pump breaker not tagged and this was corrected. Inspected unit from face to intake travel way. Six Crosscuts needed dusted from their last belt move and this was done. Took downcast air reading 97,524 cfm. Last open crosscut air reading was 30,240 cfm. Overall, this mine is in good shape and well maintained.

On February 9, 2006, MSHA recognized underground coal and surface aggregate mines for thousands of hours worked without lost time injuries. Congratulations to all of the following mines and mining companies for a fatality free year!

Underground Mine	Company
Air Quality #1 Mine	Black Beauty Coal Company
Gibson Mine	Gibson County Coal, LLC
Prosperity Mine	Five Star Mining Inc
Francisco Mine – Underground Pit	Black Beauty Coal Company
Freelandville Underground	Triad Underground Mining, L.L.C.

Should you have questions or suggestions regarding this report
please contact Don “Blink” McCorkle at the Bureau of Mines at
812.888.4514.
Thank you.